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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/539,240

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Yuji Hiramatsu

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8180 GREENSBORO DRIVE

SUITE 850

MCLEAN, VA 22102

EXAMINER

VANAMAN, FRANK BENNETT

ART UNIT

PAPER NUMBER

3618

NOTIFICATION DATE

DELIVERY MODE

02/14/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/539,240	Applicant(s) HIRAMATSU, YUJI	
	Examiner Frank B. Vanaman	Art Unit 3618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 7-26 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 7-26 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 June 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>6/16/05, 8/5/05, 7/19/06, 12/7/06</u> . | 6) <input type="checkbox"/> Other: ____. |

Status of Claims

1. Applicant's Preliminary amendment has been entered in the application. Claims 1-6 are canceled, claims 7-26 are currently pending.

Priority

2. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Drawings

3. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the case with a fixing element arranged to fix a central region of the case to the board, leaving front and rear ends of the case free, where the case is slidably attached to the board (claim 13) must be shown or the feature(s) canceled from the claim(s). Note that the claims are cumulative, as such claim 13 includes all limitations of claim 7, and as such, claim 13 appear to mix two distinct embodiments, which is not shown. No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

4. Claims 7-26 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. In claims 7 and 17, the claims recite a motor controller arranged to supply at least one wheel with rotary power. The specification as filed and the drawings fail to completely support this recitation. See the specification at paragraphs 0038 and 0039, which describe the motor as being located inside the drive wheel (7), wherein the wheel is supported on a supporting arm (35) which is allowed to freely pivot through 360 degrees (paragraph 0039), however no operative connection through this freely pivoting arrangement is described for providing motor power to the motor in the wheel from the controller on the board. In claim, 13, the recitation of a case which is both (a) provided with a fixing element arranged to fix a central region of the case to the board, leaving front and rear ends of the case free, and (b) where the case is slidably attached to the board is not supported by the specification as filed. Note that the claims are cumulative, as such claim 13 includes all limitations of claim 7, and as such, claim 13 appear to mix two distinct disclosed embodiments, which are not disclosed as being usable together.

5. Claim 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 8, line 4, "the rotary force" lacks a clear antecedent basis (compare to "rotary power" in claim 7).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 7-12, 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo et al. (US 5,487,441). Endo et al. teach a skateboard including a board portion (1) with a top and bottom surface, and which is made from a material which constitutes a structure and which has an inherent flexibility property, wheels (8, 11) provided on a bottom surface at front and rear regions thereof, a motor controller in the form of at least a battery (13), which is provided with at least one fixing element in the form of a bolt (14) and nut (15), which is located only at a longitudinally central location on the controller, leaving the front and rear portions free (see figure 9, for example) fixing the top face to the bottom of the board, and with the remaining portions being suspended from the board, the arrangement further provided with a weight transfer detection sensor (16, 17), which detects a weight transfer of the rider (e.g., on or off 16, 17) and generates a signal by placing a motor resistance across the battery (i.e., by providing a current draw), and controlling the motor.

The reference to Endo fails to explicitly separately teach a case for the controller which comprises a battery (13). It is very old and well known to provide controllers and/or batteries in casings so as to protect them from damage, and it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a case to accommodate the battery for the very well known purpose of preventing damage to the battery. As regards claim 11, the reference to Endo et al. fails to explicitly teach plural batteries, however it is very old and well known to duplicate already-taught elements in the prior art to enhance or multiply the taught effect of the elements, and as such, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide the battery as plural batteries for the purpose of (1) providing a higher motor drive voltage and/or (2) providing a higher motor current.

8. Claims 13 and 17-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Endo et al. (cited above) in view of Smolka (US 3,797,844). The reference to Endo et al. fails to teach the battery and/or case as being slidably attached to the board, so as to allow longitudinal movement of the case, further to include the provision of elongated

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holes and/or a guide rail in which a fixing or guiding element is engaged. Smolka teaches that it is well known to provide a mounting for an element having a fixed spacing on a gliding board which has a greater degree of flexibility (in this case a ski, 5) wherein the mount includes a guide rail (lower portion of 3) which engages with guiding elements (7) constituted by pins which are engaged in slots. Smolka additionally teaches specifically that such an arrangement provides an advantage in that the normal flexibility of the board is retained, while the components on the mounting are retained in a fixed arrangement (see the abstract, for example). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the battery mounting as a mount having a guide rail and mounting pins and/or elongated openings, as taught by Smolka to mount the battery taught by Endo et al. to the bottom of the board of Endo et al., for the purpose of allowing the flexibility of Endo et al.'s board to be unimpeded by the presence of the battery and casing. One of ordinary skill, noting the clear advantage taught by Smolka in providing a mounting which allows the natural flexibility of the board to be retained would recognize that such a mounting would provide a similar analogous retention of board flexibility in Endo et al.

9. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over Endo (cited above) in view of Staelin et al. (US 6,059,062). The reference to Endo et al. is discussed above and fails to teach that at least one of the battery and controller are spaced from the bottom of the board. Staelin et al. teach that it is well known in motorized propulsion devices to provide at least a battery (33) mounted with respect to the bottom face of a foot accommodating portion (18) so as to be spaced from the bottom face (e.g., figure 1a). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the battery taught by Endo et al. to be mounted in a spaced relationship with the bottom of the board face, as suggested by Staelin et al., for the purpose of accommodating a further element (44, 76, 171, etc.) in the same footprint of the battery casing, so as to facilitate closely proximate mounting of the battery and other elements, facilitating, for example, shorter electric line lengths, reducing voltage drop.

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10. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Endo et al. in view of Smolka and Staelin et al. The reference to Endo et al. as modified by Smolka is discussed above, and fails to teach that at least one of the battery and controller are spaced from the bottom of the board. Staelin et al. teach that it is well known in motorized propulsion devices to provide at least a battery (33) mounted with respect to the bottom face of a foot accommodating portion (18) so as to be spaced from the bottom face (e.g., figure 1a). It would have been obvious to one of ordinary skill in the art at the time of the invention to provide the battery taught by Endo et al. to be mounted in a spaced relationship with the bottom of the board face, as suggested by Staelin et al., for the purpose of accommodating a further element (44, 76, 171, etc.) in the same footprint of the battery casing, so as to facilitate closely proximate mounting of the battery and other elements, facilitating, for example, shorter electric line lengths, reducing voltage drop.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Martin (US 5,020,621), Hsu et al. (US 5,330,026), Finkle (US 5893,425), Namiki (US 6,428,022) and Lin (US 6,796,394) teach skate devices of pertinence.

12. Any inquiry specifically concerning this communication or earlier communications from the examiner should be directed to F. Vanaman whose telephone number is 571-272-6701.

Any inquiries of a general nature or relating to the status of this application may be made through either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Or faxed to:

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PTO Central Fax: 571-273-8300

F. VANAMAN
Primary Examiner
Art Unit 3618

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